

C9020-463.exam

Number: C9020-463
Passing Score: 800
Time Limit: 120 min



C9020-463

IBM System Storage DS8000 Technical Solutions



Exam A**QUESTION 1**

Where is the information stored to determine has performed remote services on a storage system and to find the time when the service was performed?

- A. Audit Log
- B. TPC
- C. DS GUI
- D. DS Command Line Interface

Correct Answer: D

Section: (none)

Explanation

Explanation/Reference:

QUESTION 2

Which capability is unique to the IBM DS8870?

- A. Thin provisioning for distributed systems
- B. Three-site cascaded replication
- C. Cache mirroring for all write data from servers
- D. Point-in-time copy with full copy



Correct Answer: D

Section: (none)

Explanation

Explanation/Reference:

QUESTION 3

A customer has requirements of continuous availability: 99.9999% availability, and a maximum of 32 seconds downtime per year.

Which IBM storage product and feature will address these requirements?

- A. IBM DS8870 with HyperSwap
- B. IBM TS7720T Grid

- C. IBM XIV with Replication
- D. IBM Spectrum Virtualize with stretch cluster

Correct Answer: A

Section: (none)

Explanation

Explanation/Reference:

QUESTION 4

What are the standard connection types that provide the capability for sending and receiving data between the client and IBM?

- A. Ethernet and modem
- B. Modem and FCoE
- C. FCoE and Broadband
- D. Infiniband and Ethernet

Correct Answer: A

Section: (none)

Explanation

Explanation/Reference:



QUESTION 5

What is defined as "non-volatile storage" in an IBM DS8870 controller?

- A. 50% of the cache in each controller
- B. Cache in each I/O adapter card that increases reliability
- C. Cache memory modules which are mirrored
- D. Cache memory used to hold data not written to disk

Correct Answer: D

Section: (none)

Explanation

Explanation/Reference:

QUESTION 6

What are two important considerations when planning for power physical connections? (Choose two.)

- A. Power connector
- B. Layout
- C. Input voltage
- D. Firmware release level
- E. Number of drives

Correct Answer: BC

Section: (none)

Explanation

Explanation/Reference:

QUESTION 7

What is the proper topology setting needed to support connectivity to a SAN fabric for open systems attachment?

- A. SCSI-MAP256
- B. SCSI-FCP
- C. OPEN (Mode)
- D. FC-AL



Correct Answer: B

Section: (none)

Explanation

Explanation/Reference:

QUESTION 8

A customer is experiencing high IOSQ time with its existing storage.

Which IBM DS8870 feature is designed to reduce IOSQ time?

- A. Fabric Priority
- B. Multiple Allegiance
- C. MIDAWs
- D. HyperPAV

Correct Answer: D

Section: (none)

Explanation

Explanation/Reference:

QUESTION 9

A customer is having performance problems with an IBM DS8870. The DS8870 has only 600 GB drives (all drives are the same size and speed). A performance analysis indicates that some ranks are performing much more I/O than others. The customer is not running Easy Tier.

What should you recommend first?

- A. Add more cache to the machine.
- B. Purchase SSDs and set up a combined HDD+SSD Easy Tier pool.
- C. Purchase an Easy Tier license.
- D. Use auto-rebalance in Easy Tier.

Correct Answer: D

Section: (none)

Explanation

Explanation/Reference:



QUESTION 10

A customer is trying to determine how to set up the correct order of who gets notified when a problem occurs with the customer's IBM DS8870.

Who sets the customer preferences for remote support?

- A. The IBM installation personnel from the installation worksheet
- B. The IBM sales representative from the order worksheet
- C. The IBM service representative from the customer worksheet
- D. The IBM support personnel from the call menu worksheet

Correct Answer: C

Section: (none)

Explanation

Explanation/Reference:

Reference: https://books.google.com.pk/books?id=LhA3CgAAQBAJ&pg=PA412&lpg=PA412&dq=sets+the+customer+preferences+for+remote+support&source=bl&ots=KyQzfg3Lh&sig=WRoqHn7OQaVtFKymR_nHueBPp1c&hl=en&sa=X&ved=0CCEQ6AEwAWoVChMlJJuE1Kn3xwIVi1caCh36Dwti#v=onepage&q=sets%20the%20customer%20preferences%20for%20remote%20support&f=false (See the Paragraph #15.1, last Paragraph).

QUESTION 11

A customer is intrigued by the Easy Tier offering that the IBM DS8870 provides and wants to implement a hybrid pool to allow Easy Tier to automatically move data between different tiers of storage based on his actual workload.

Which three valid hybrid pools will enable this? (Select three.)

- A. 300 GB 15,000 RPM and 600 GB 15,000 RPM disk drives
- B. 800 GB SSDs and HPFE flash cards
- C. 600 GB 15,000 RPM and 600 GB 10,000 RPM disk drives
- D. 4 TB 7,200 RPM disk drives, and HPFE flash cards
- E. 600 GB 10,000 RPM, 4 TB 7,200 RPM disk drives, and HPFE flash cards
- F. 600 GB 15,000 RPM disk drives and HPFE flash cards

Correct Answer: CDE

Section: (none)

Explanation

Explanation/Reference:



QUESTION 12

A customer wants to have a Metro Mirror relationship for a single volume between two IBM DS8870s and take a Point-in-Time Copy (PTC) of both the source and target while minimizing the data flow between the two storage units.

Which PTC option is appropriate?

- A. Multiple Relationship FlashCopy
- B. FlashCopy on existing Metro Mirror or Global Copy primary
- C. Remote Pair FlashCopy with Multiple Target PPRC
- D. Remote Pair FlashCopy

Correct Answer: A

Section: (none)

Explanation

Explanation/Reference:

Reference: <http://www.redbooks.ibm.com/redbooks/pdfs/sg246787.pdf>

QUESTION 13

The IBM DS8870 is equipped with two DC-UPSs per frame.

How should the DS8870 be connected to the facility power?

- A. It is enough that one is connected as the other is in standby
- B. To the same circuit, since the DC-UPSs provide redundancy
- C. To different circuits for redundancy
- D. The DC-UPSs are daisy-chained, so only one needs to be connected

Correct Answer: B

Section: (none)

Explanation

Explanation/Reference:

Reference: <http://www.redbooks.ibm.com/Redbooks.nsf/RedbookAbstracts/tips1180.html?Open>

QUESTION 14

Which solution should you recommend to a customer looking for an FC storage solution that can support a minimum of 72 8 Gb direct FC host connections and 1.2 PB raw capacity of storage?

- A. Three Frame, 2-core IBM DS8870 Business Class
- B. Single Frame 4-core IBM DS8870 Enterprise Class
- C. Four Frame, 16-core IBM DS8870 Business Class
- D. Two Frame, 8-core IBM DS8870 Enterprise Class

Correct Answer: D

Section: (none)

Explanation

Explanation/Reference:

Reference: <http://www.redbooks.ibm.com/Redbooks.nsf/RedbookAbstracts/tips1180.html?Open> (see table 3)

QUESTION 15

On which two IBM systems is the T10-PI (Protection Information) feature, also known as T10-DIF (Data Integrity Feature), available? (Choose two.)

- A. SVC Release 7.2
- B. DS8870 Release 7.4
- C. DS8300 Release 4.3

- D. XIV Generation 3.1
- E. Storwize V7000 Release 7.4

Correct Answer: D

Section: (none)

Explanation

Explanation/Reference:

QUESTION 16

What IBM software enables multiple database aware backups?

- A. IBM Spectrum Protect
- B. FlashCopy Manager
- C. FlashCopy Space Efficient
- D. Remote Pair FlashCopy

Correct Answer: A

Section: (none)

Explanation

Explanation/Reference:

Reference: <http://www-03.ibm.com/software/products/en/spectrum-protect-family>



QUESTION 17

A customer wants to move block data from an IBM DS8870 to an IBM DS8300 for the purpose of long-term data retention on a slower device.

Which software should be used to move the data?

- A. Spectrum Virtualize
- B. Spectrum Archive
- C. Spectrum Accelerate
- D. Spectrum Scale

Correct Answer: B

Section: (none)

Explanation

Explanation/Reference:

QUESTION 18

A customer has decided to take advantage of Space Efficient FlashCopy technology to facilitate full volume backups of data, but the customer also wants to use FlashCopy for more long-term replicas of data to be used for data mining. You have helped them estimate the Track Space Efficient repository requirements to be 10 TB, and the customer has told you that its data mining requirements will be up to 40 TB. You are proposing a total raw capacity solution of 110 TB.

Which combination of licenses must be ordered for this configuration?

- A. OEL = 110 TB, PTC = 110 TB, PTC-SE = 10 TB
- B. OEL = 110 TB, PTC = 40 TB, PTC-SE = 40 TB
- C. OEL = 110 TB, PTC = 110 TB, PTC-SE = 110 TB
- D. OEL = 110 TB, PTC = 40 TB, PTC-SE = 10 TB

Correct Answer: B

Section: (none)

Explanation

Explanation/Reference:

**QUESTION 19**

Which technology does IBM recommend to secure remote support connections?

- A. Business-to-business VPN
- B. SSH over IP
- C. SSL
- D. Modem

Correct Answer: A

Section: (none)

Explanation

Explanation/Reference:

Reference: <http://www-01.ibm.com/support/docview.wss?uid=ssg1S1002693&aid=1>

QUESTION 20

A banking customer has a few IBM DS8870s in a data center that it wants to use with Easy Tier. Some of these DS8870s do not have SSDs.

Which statement is true for the Easy Tier Feature on an IBM DS8870?

- A. It can operate in a homogeneous pool.
- B. It handles data in 256 MB chunks.
- C. It is a priced feature by terabyte used.
- D. It requires SSDs to be added to a heterogeneous pool to operate.

Correct Answer: A

Section: (none)

Explanation

Explanation/Reference:

Reference: <http://www.redbooks.ibm.com/redpapers/pdfs/redp4667.pdf>

QUESTION 21

Which feature should be added if the elevator to the customer's data center is limited to 2000 pounds?

- A. Shipping Weight Reduction
- B. Extended Power Line Disturbance
- C. Earthquake Resistance Kit
- D. BSMI Certificate

Correct Answer: D

Section: (none)

Explanation

Explanation/Reference:



QUESTION 22

A customer is concerned about connecting to a Brocade 4 Gb capable switch.

What should you tell the customer?

- A. The IBM DS8870 has always been only 4 Gb capable and will connect.
- B. The IBM DS8870 will need an SVC to be able to connect to the switch.
- C. The IBM DS8870 is 8 Gb capable and will connect via negotiation with the switch.
- D. The IBM DS8870 is 8 Gb capable and will require a hardware upgrade to connect.

Correct Answer: C

Section: (none)

Explanation**Explanation/Reference:****QUESTION 23**

A customer is ordering an IBM DS8870 to attach to an IBM AIX system and has a requirement that certain applications get as much bandwidth as possible.

Which feature should be recommended to the customer?

- A. Multi-thread Performance Accelerator
- B. I/O Priority Manager
- C. Adaptive Multi-stream Prefetching
- D. High Performance FICON

Correct Answer: C

Section: (none)

Explanation**Explanation/Reference:****QUESTION 24**

Which product will provide a customer with full encryption for all data with server-based key management?

- A. IBM DS8870
- B. IBM FlashSystem 900
- C. IBM Storwize V7000 v7.4
- D. IBM Spectrum Virtualize v7.4

Correct Answer: A

Section: (none)

Explanation**Explanation/Reference:**

Reference: <http://www.redbooks.ibm.com/redpapers/pdfs/redp4500.pdf>

QUESTION 25

During a Technical and Delivery Assessment pre-install review, a customer identifies a desire to implement Easy Tier within its new IBM DS8870 deployment.

Which planning requirement must be discussed as part of the checklist planning review?

- A. Selection of manual mode does not require available extents to perform migration inside an extent pool.
- B. Selection of automatic mode requires free extents in each extent pool (IBM recommends 10 free extents per rank in a pool).
- C. Selection of automatic mode requires free extents in each extent pool (IBM recommends 10 free extents within a pool).
- D. Selection of manual mode requires Easy Tier indicator (FC# 7083) and DB protection indicator (FC# 7080).

Correct Answer: D

Section: (none)

Explanation

Explanation/Reference:

QUESTION 26

A customer has a data center that is managed remotely.

What must be done to the IBM DS8870 to enable it to work in this environment?

- A. Order TPC to allow management.
- B. Utilize the internal HMC.
- C. Use the SSPC that is shipped with each DS8870.
- D. Have the Systems Director manage the DS8870.



Correct Answer: A

Section: (none)

Explanation

Explanation/Reference:

QUESTION 27

Which two local alerting notification methods can be configured on the IBM DS8870? (Choose two.)

- A. SNMP
- B. SMI-S
- C. Syslog
- D. RESTful API
- E. SMTP

Correct Answer: AE

Section: (none)

Explanation

Explanation/Reference:

QUESTION 28

Which IBM storage solution has a competitive advantage over the Fujitsu ETERNUS DX8700 S2 for a customer that has three sites and requires replication?

- A. IBM DS8870 with Metro/Global Mirror function
- B. IBM Storwize V7000 with native IP replication
- C. IBM SVC DH8 with replication to an IBM Storwize V7000
- D. IBM DS8870 with SVC and stretch cluster

Correct Answer: A

Section: (none)

Explanation

Explanation/Reference:



QUESTION 29

A customer uses Easy Tier on standard (thick) volumes and wants to introduce thin (ESE) volumes. They are worried that problems could arise.

How would you advise the customer about these concerns?

- A. ESE volumes work in combination with TSE volumes.
- B. ESE volumes will significantly improve performance.
- C. ESE volumes are supported by Easy Tier.
- D. ESE volumes are compatible with any solution.

Correct Answer: C

Section: (none)

Explanation

Explanation/Reference:

Reference: http://www-304.ibm.com/support/knowledgecenter/STXN8P/com.ibm.storage.ssic.help.doc/f2c_autodatarelloc_lfa4gd.html

QUESTION 30

Which feature of the IBM DS8870 will provide a customer with continuous availability with no outage in a single site?

- A. Metro Mirror
- B. Multi-target PPRC
- C. Global Mirror
- D. HyperSwap

Correct Answer: C

Section: (none)

Explanation

Explanation/Reference:

QUESTION 31

The customer has had disgruntled employees walk out of the data center with components.

Which three components are encrypted to prevent a data breach? (Choose three.)

- A. Solid state drives
- B. Hard disk drives
- C. Cache modules
- D. Host Bus Adapters
- E. High-Performance Flash Enclosures
- F. Hardware Management Consoles



Correct Answer: ABE

Section: (none)

Explanation

Explanation/Reference:

QUESTION 32

Which characteristic is NOT correct for the IBM DS8870 High-Performance Flash Enclosures (HPFE)?

- A. A HPFE is 2U high.
- B. Of the four RAID ranks in one HPFE, two could be formatted for Mainframe/CKD, and two could be formatted for Open/FB volumes.
- C. A HPFE supports encryption.

D. There can be up to eight HPFEs in one IBM DS8870.

Correct Answer: B

Section: (none)

Explanation

Explanation/Reference:

QUESTION 33

Which competitive advantage does the IBM DS8870 have against HDS VSP G1000 in cloud deployments?

- A. It has better cost per GB.
- B. It offers support for Open Stack Cinder.
- C. It has better performance using Easy Tier.
- D. It has larger capacity than a VSP G1000.

Correct Answer: B

Section: (none)

Explanation

Explanation/Reference:



QUESTION 34

A customer wants to use Global Mirror to replicate at 1000 kilometers but is concerned about the capacity at the remote site.

How many copies of the data exist at both the local and remote site in a Global Mirror relationship?

- A. 2
- B. 5
- C. 4
- D. 3

Correct Answer: D

Section: (none)

Explanation

Explanation/Reference:

QUESTION 35

A customer wants a synchronous copy solution.

Which feature provides this customer with the needed solution?

- A. Global Copy
- B. Metro Mirror
- C. Global Mirror
- D. Metro Global Mirror

Correct Answer: B

Section: (none)

Explanation

Explanation/Reference:

Reference: <http://www-07.ibm.com/storage/includes/content/news/center/disk/enterprise/downloads/TSS00241USEN.PDF> (page 4)

QUESTION 36

A customer is comparing the storage offerings between IBM and Fujitsu. The main criteria in the comparison is fully automated sub-LUN storage tiering. Fujitsu is offering its ETERNUS DX8700 S2 with Flexible Tier.

Which competitive storage solution should be proposed for this bid?

- A. IBM FlashSystem 900, which includes Flash technology
- B. IBM XIV with a demonstration of its grid architecture
- C. IBM DS8870 with TPC, which includes comprehensive storage resource management
- D. IBM DS8870, which includes the Easy Tier function with its base software

Correct Answer: D

Section: (none)

Explanation

Explanation/Reference:

QUESTION 37

A customer wants to migrate from an IBM DS8700 to an IBM DS8870 located 1000 kilometers away, using a minimum of storage, licenses, and impact to the local site. The customer will allow the data to move to the remote site, stop the application, and then restart it at the remote site.

Which replication method should be used?

- A. Metro Mirror
- B. Global Copy
- C. Metro/Global Mirror
- D. Global Mirror

Correct Answer: C

Section: (none)

Explanation

Explanation/Reference:

QUESTION 38

A client has purchased an IBM DS8870 to address its requirements for both a long-term archive solution managed by a single PowerAIX server, as well as a separate PowerAIX DB2 database server solution running its OLTP application.

The storage that was purchased for these requirements includes 12 managed arrays of 4 TB Nearline drives and 24 managed arrays of 600 GB 15,000 RPM Enterprise drives. The client intends to use the Nearline capacity for its long-term archive and the Enterprise capacity for the OLTP requirements.

What is the logical configuration to implement for this solution?

- A. Define two extent pools: one pool containing the Nearline ranks and being used to hold all long-term archive LUNs, and one pool containing the Enterprise ranks and being used to hold all of the OLTP server LUNs.
- B. Define a single extent pool containing the Nearline and Enterprise ranks and being used to hold all of the archive LUNs and the OLTP LUNs.
- C. Define four extent pools, with one pool pair containing Nearline ranks and the other pool pair containing Enterprise ranks. DS Storage Manager will automatically direct allocations to the correct pool pair based on which application server the LUNs are associated with.
- D. Define four extent pools, with one pool pair containing Nearline ranks and the other pool pair containing Enterprise ranks. LUNs created for archive purpose should use the Nearline pools evenly and LUNs created for OLTP should use the Enterprise pools evenly.

Correct Answer: C

Section: (none)

Explanation

Explanation/Reference:

QUESTION 39

Through which method does IBM DS8870 High Performance Flash Enclosure connect?

- A. Infiniband
- B. Device adapter

- C. PCIe
- D. Host bus adapter

Correct Answer: C

Section: (none)

Explanation

Explanation/Reference:

QUESTION 40

A customer wants to do a model conversion from an IBM DS8800 to an IBM DS8870 and wants to reuse as much of the existing DS8800 as possible.

Which three parts of the DS8800 can be reused? (Choose three.)

- A. Disk drives
- B. Host adapters
- C. Processors
- D. Power supply
- E. Serial number
- F. Frames

Correct Answer: ADF

Section: (none)

Explanation

Explanation/Reference: